Natural Stormwater Mangement for Residential Properties

2/4/2017

Landowner Workshop

msd
Safe, clean waterways

Presentation Highlights

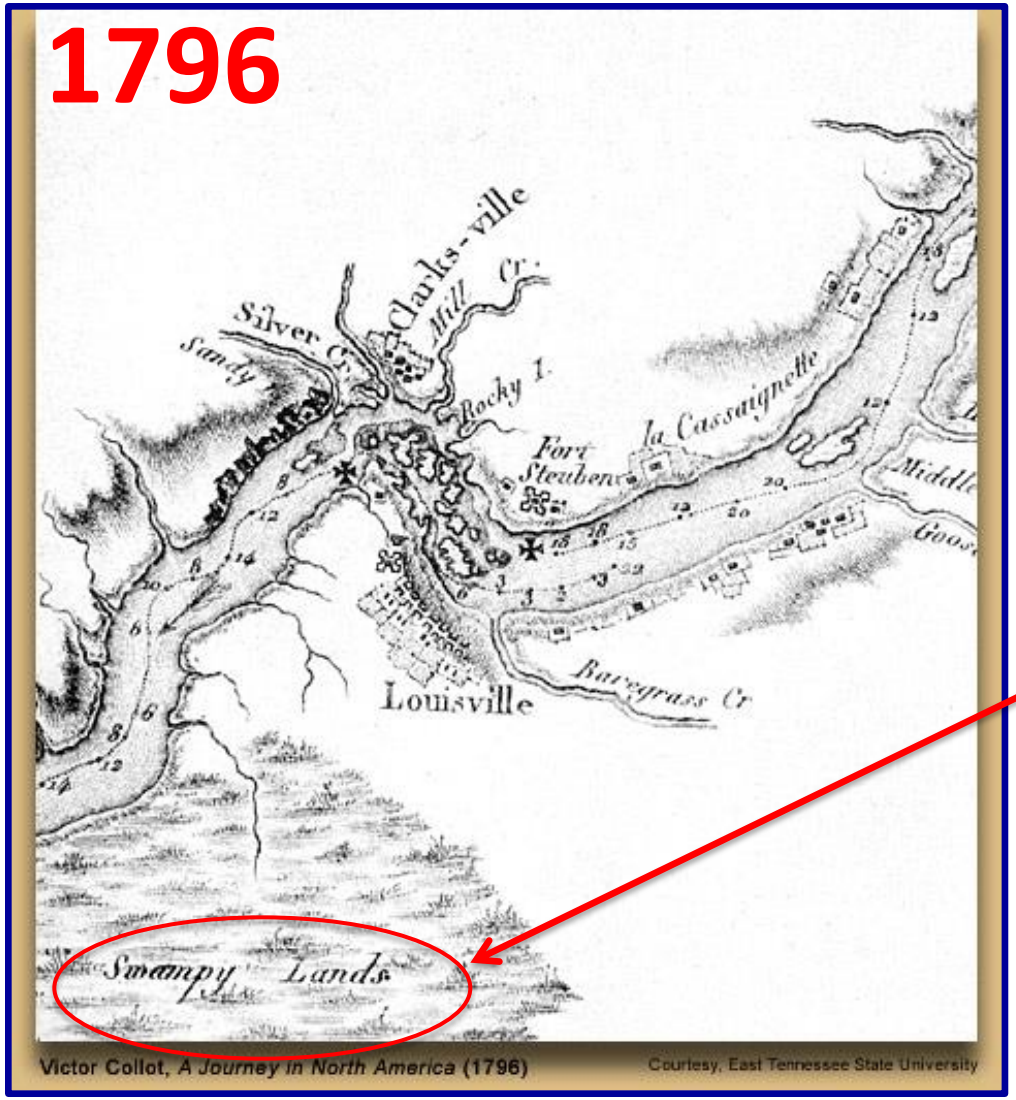
- Traditional Stormwater Management
- Natural Stormwater Management
- Why Should I Care?

msd
Safe, clean waterways

Traditional Stormwater Management

msd
Safe, clean waterways

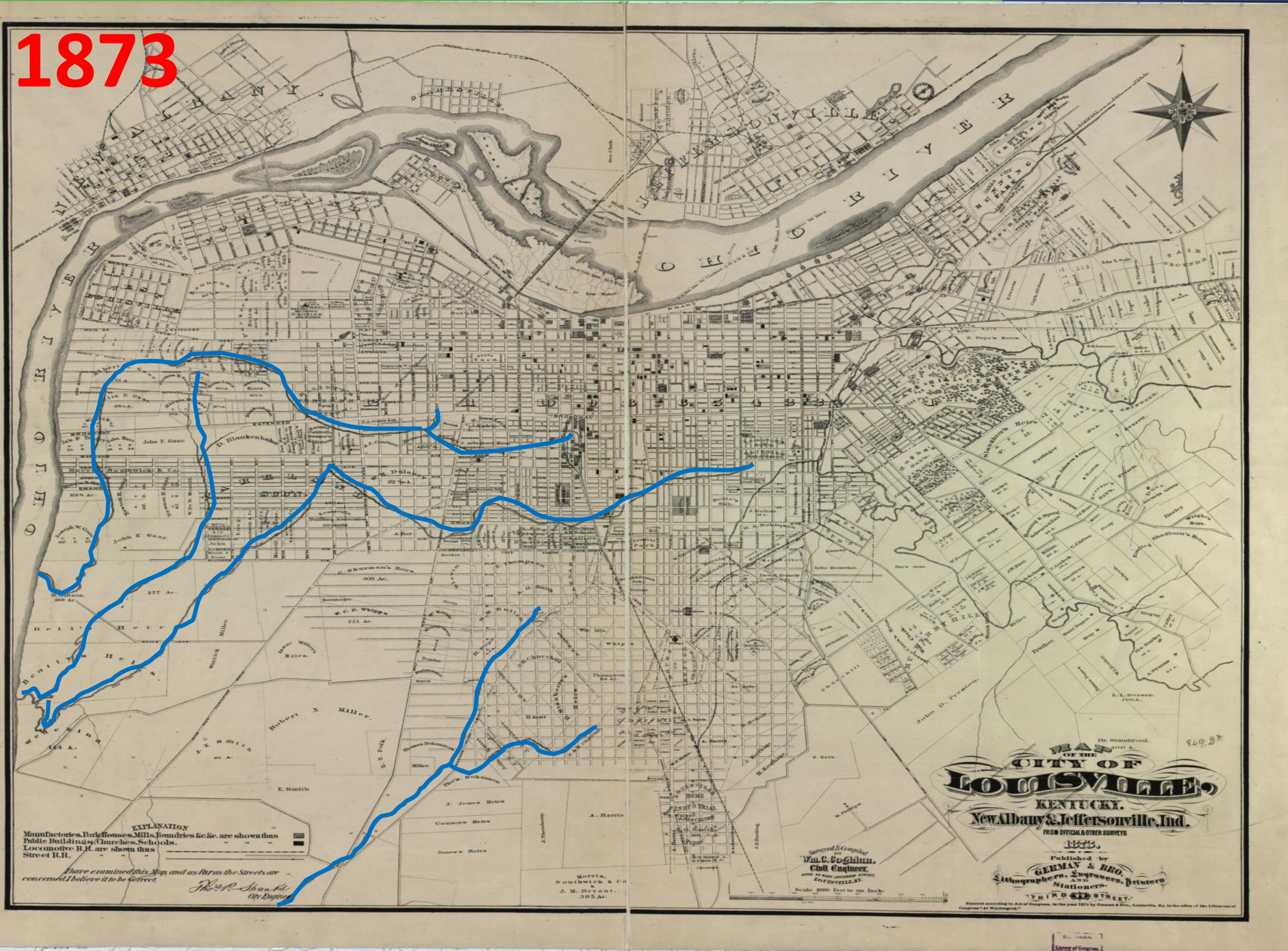
Where We Started



"Swampy Lands"

msd
Safe, clean waterways

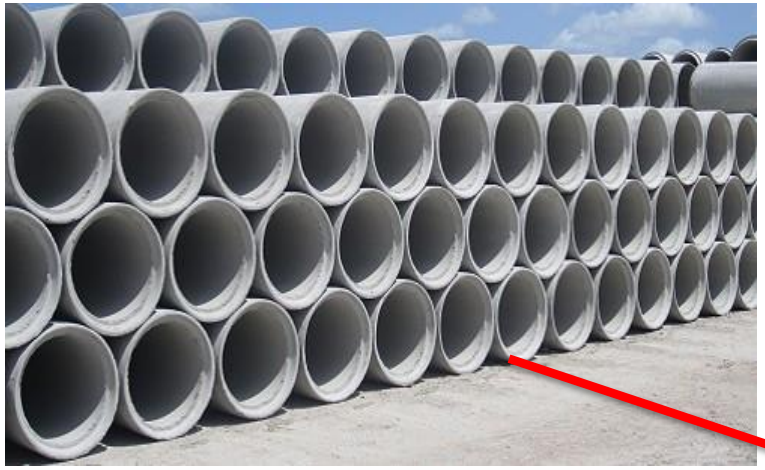
1873

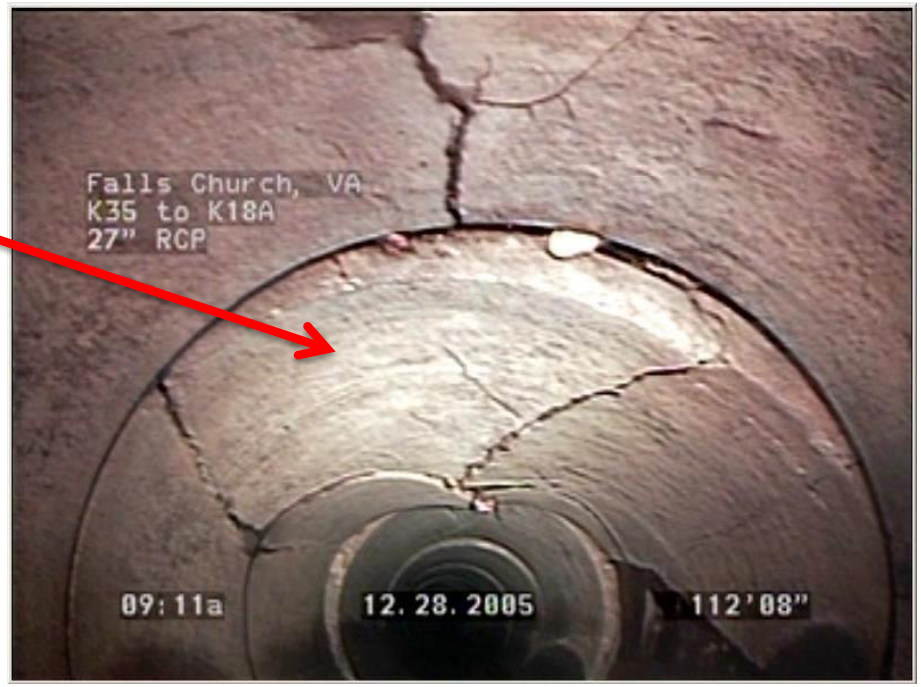


MAP OF THE CITY OF LOUISVILLE,
KENTUCKY.
New Albany & Jeffersonville, Ind.
FROM OFFICIAL & OTHER SURVEYS
1873.
Published by
GERMAN & BRO.
Lithographers, Engravers, Printers and Stationers.
THIRD STREET.
EXPLANATION
Manufactories, Pork Houses, Mills, foundries &c. &c. are shown thus
Public Buildings, Churches, Schools.
Locomotive R.R. are shown thus
Street R.R.
I have examined this Map, and as far as the Streets are concerned I believe it to be correct.
City Engineer
OHIO RIVER
NEW ALBANY
JEFFERSONVILLE
Dr. Standiford. 200 A.
L. L. Dorsey. 100 A.
John D. Preston.
E. Smith
Robert N. Miller.
John E. Gaar

1905

Lots of pipes!





Get the water away from people and into the nearest stream as fast as possible.

msd
Safe, clean waterways

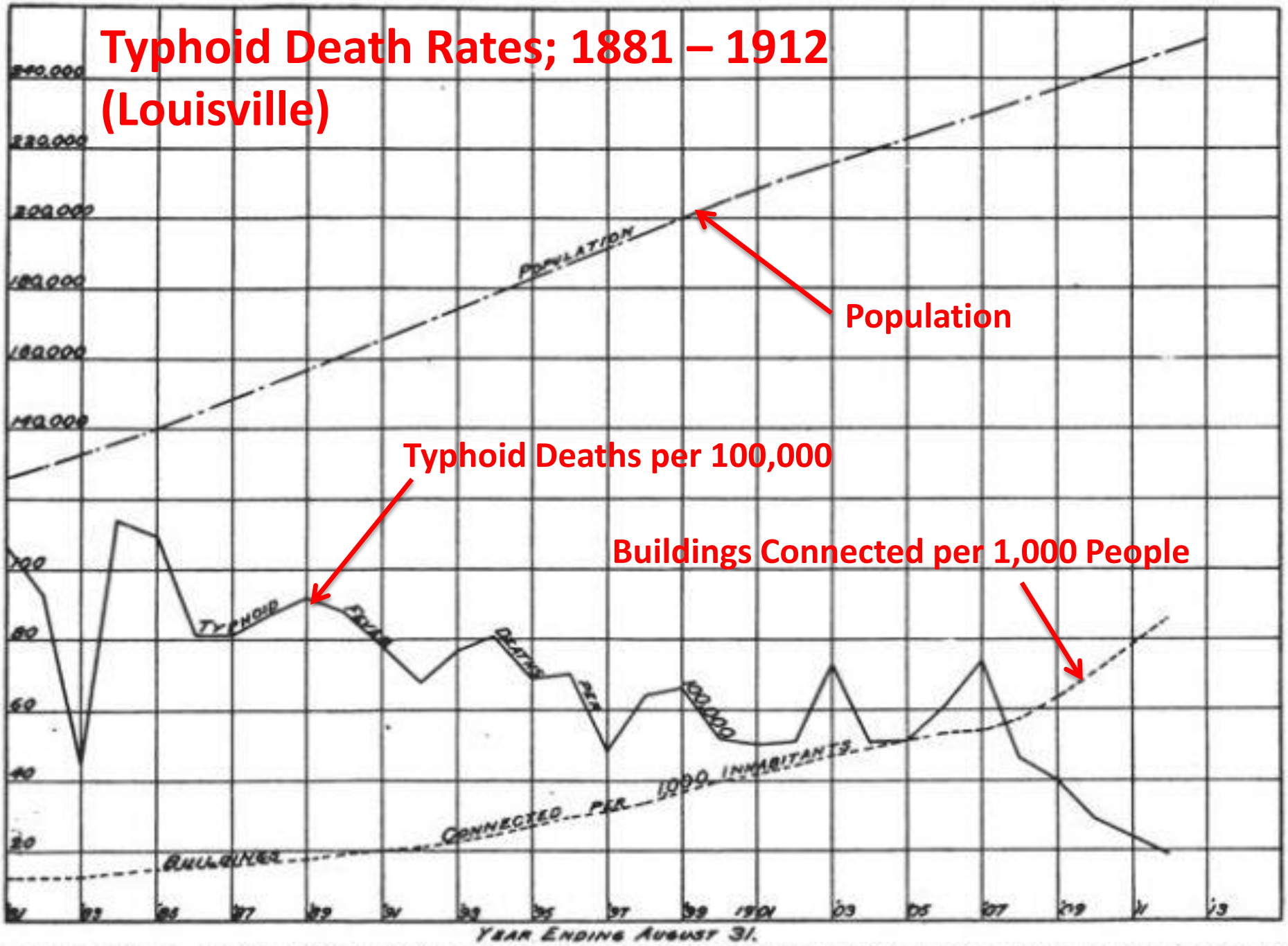


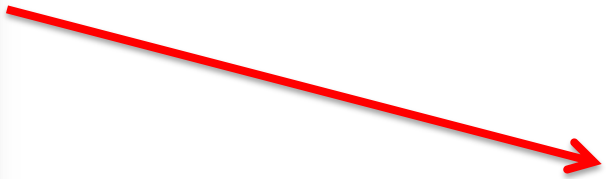
DIAGRAM NO. 1.—POPULATION, GROWTH OF SEWERAGE SYSTEM AND TYPHOID DEATH RATE, FROM 1881 TO 1912.

Natural Stormwater Management

msd
Safe, clean waterways

Natural Stormwater Management

try to make this…



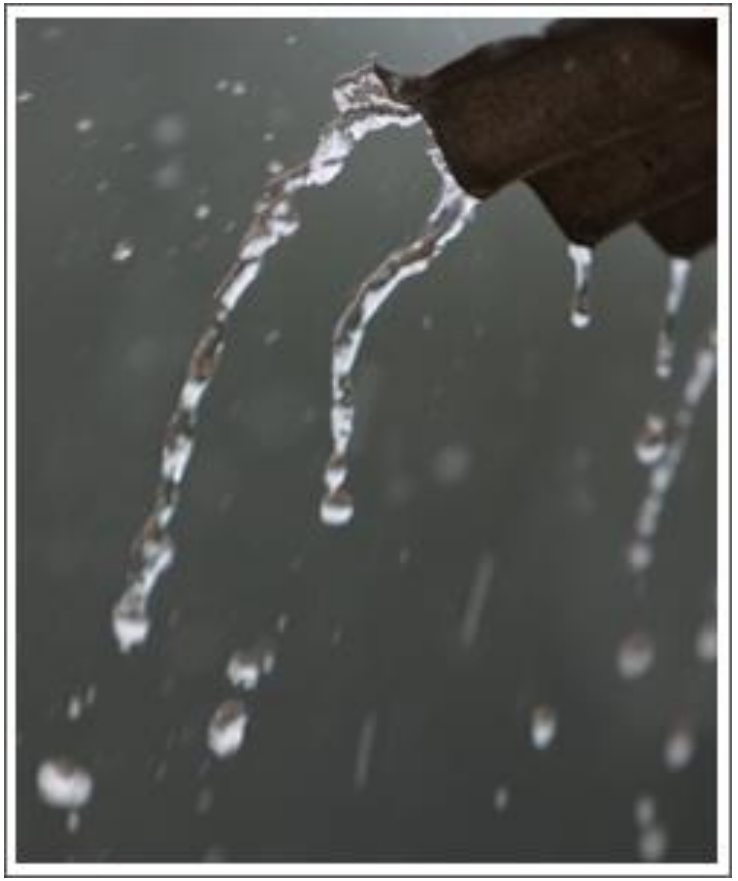
Filter runoff before it can carry pollutants to waterways, reduce excess runoff.

function like this

msd
Safe, clean waterways

Natural Stormwater Management

- Hard surfaces don't absorb rain
  - Roofs
  - Driveways/Parking Lots
  - Patios
- Development introduces pollutants
  - Oil, Gas
  - Trash, Debris
  - Sediment
  - Metals, Chemicals
  - Excess runoff
  - Heat
- Rain carries pollutants to waterway

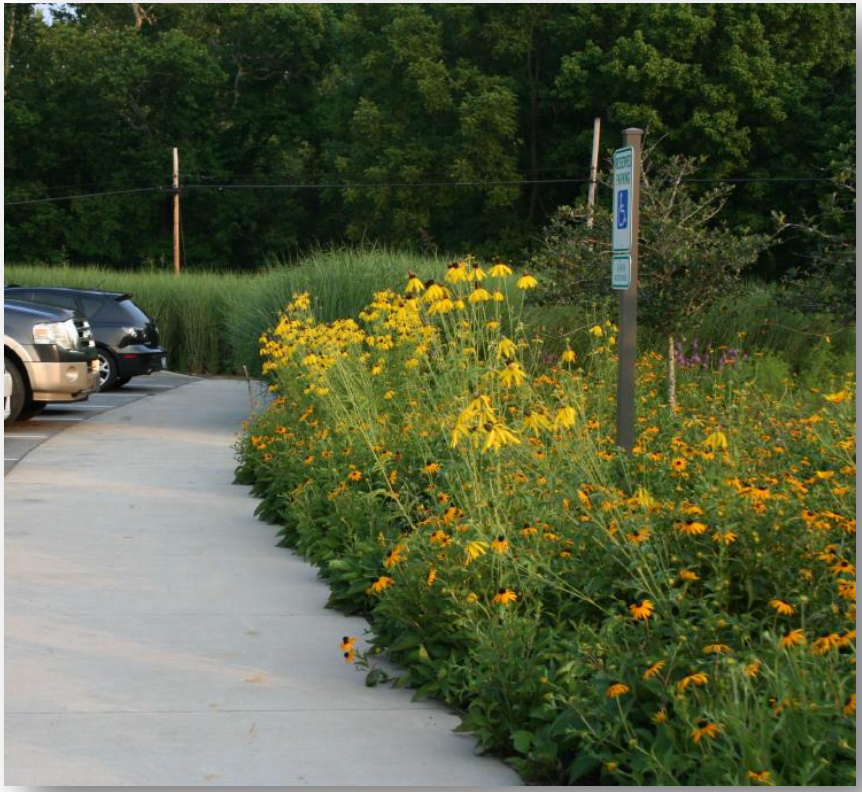


msd
Safe, clean waterways

Natural Stormwater Management

Rain Gardens:

- Use deep-rooted native plants to absorb and filter runoff
- Provide habitat
- Aesthetic value



msd
Safe, clean waterways

Natural Stormwater Management

- Rain Garden Tips:
  - Ensure there is an appropriate water source (downspout)
  - Soil type is important, may need to be amended
  - Usually 8 to 12 inches deep
  - Locate at least 10 feet away from structures with basements
  - Use a variety of native plant species, ensure location will allow them to thrive
  - Use in combination with rain barrel to ensure health during drought

msd
Safe, clean waterways

Why Should I Care?

msd
Safe, clean waterways

Attractive, Functional Landscape

- Rain gardens soak up stormwater runoff
- Rain gardens remove pollutants from stormwater runoff that damage the environment
- Rain gardens are attractive, value-adding landscaping features

msd
Safe, clean waterways

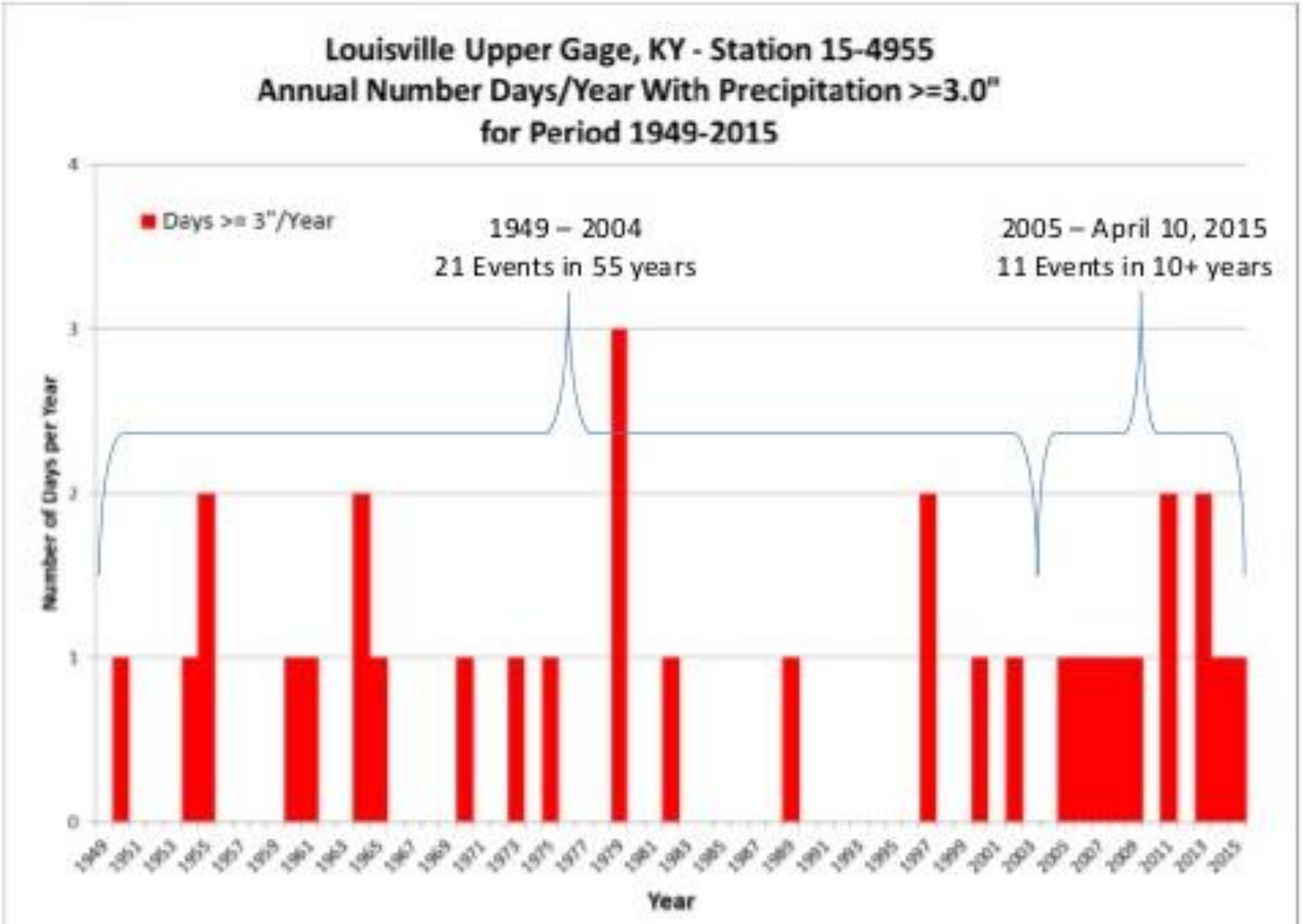
Stormwater Pollution

- Sediment is the #1 pollutant in Kentucky
- Major effect on usability of waterways, aquatic life, habitat

msd
Safe, clean waterways

Increased Frequency of Extreme Storms

Highlights Drainage and Floodplain Management Needs



Questions?

msd
Safe, clean waterways